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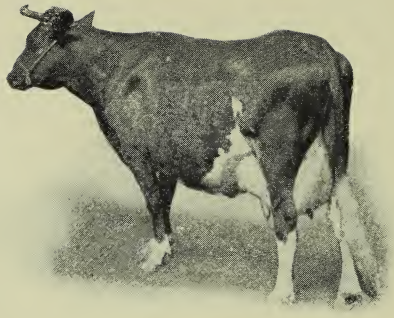
The University Dairy



CIRCULAR No. 73
AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF ILLINOIS

Milk Production

AT THE

University of Illinois

EXPLANATORY NOTE.—This circular was originally issued to acquaint the local public with the methods employed at the University dairy. It is reprinted in connection with Bulletin No. 92 as a specimen of what should be done in the way of informing the public of the exact methods in use by any milk dealer who adopts improved standards. Incidentally, it is hoped that such literature will stimulate better ideals among both producers and customers. It is needless to say that such a circular should tell the truth—no more, no less.

THE HERD

Choice specimens of Holstein-Friesians, Jerseys, Guernseys, and Ayrshires, with a few selected grades, comprise the University herd, which, bred to the best sires obtainable, is maintained as a breeding herd of a high order of excellence.

The health of the animals is kept constantly in view. They are frequently inspected by the professor of veterinary science, and are occasionally tested for tuberculosis, thus making the milk safe for infant use, without being either pasteurized or sterilized.

In summer a shady pasture, in winter a clean, comfortable barn, and exercise in a hard, well graded yard sheltered from the cold wind, always with selected feed and the purest water, insure the most perfect conditions known for the production of wholesome milk.

IN PASTURES GREEN.
Pure air is a good tonic.

THE BARN

The barn is capacious and provided with the King system of ventilation, which insures a constant supply of fresh air without causing a draft on the cows.

It is well lighted on all sides, and so arranged as to secure the sanitary requirements, and the quiet so essential for dairy cows. The stalls and mangers are roomy, and constructed with special regard to the comfort and cleanliness of the animal. All inside construction is made of dressed lumber, iron, and cement, and thus is easily kept clean.

The cows are well bedded with clean straw frequently renewed, and the floors and gutters are scrubbed each day. No dirt or filth is allowed to accumulate, and every precaution is taken against dust and bad odors at milking-time.

WAITING FOR THE MILKING HOUR.
The cow is a mother, treat her well.

MILKING

We have found by experimentation at the University that most of the filth and bacteria that find their way into milk come from the surface of the udder during the milking process. To prevent this contamination, the loose dirt is brushed from the sides and bellies of the cows, the udders are washed and wiped, and the milkers are required to cleanse their hands and put on clean white suits and caps.

The first milk drawn is rejected, as it contains many bacteria, which have developed in the milk at the orifice of the teats since the last milking.

As soon as drawn the milk is removed to the milk-room and either separated or cooled at once.

WASHING UDDERS BEFORE MILKING.
To secure the milk without contamination, that is the problem.

BOTTLING

From the cooler the milk all runs directly into one receiving vat, where it is thoroughly mixed when the milking is completed. Enough cream or skim milk is then added to bring the butter-fat to four percent.

Because of the constant uniformity of this milk, it is much better for infant-feeding than the milk from a single cow, as the milk from one cow frequently varies greatly from milking to milking.

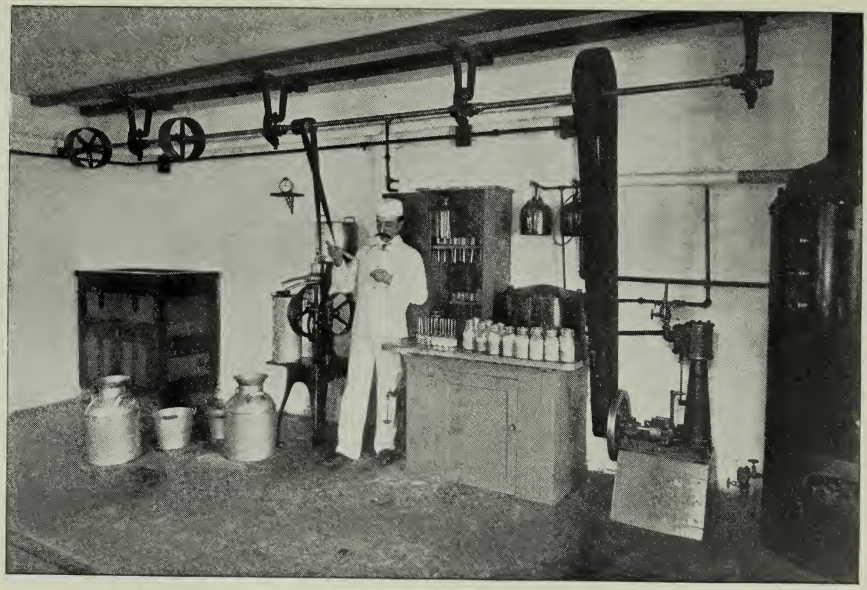
After the milk is standardized it is put into sterilized bottles and immediately sealed with paraffin pulp caps to protect it from contamination. It is then placed in the refrigerator and held below forty degrees Fahrenheit until delivered.

AERATING, COOLING, AND BOTTLING.
It is half in preparation.

SEPARATING AND STANDARDIZING

Cream is quickly obtained by passing milk through a centrifugal separator that has a speed of seven thousand revolutions per minute, and that may be adjusted to produce any desired richness. By this process the cream is secured before it commences to sour, and as it is immediately cooled it makes a product of excellent keeping quality.

The cream is frequently examined with the Babcock test, and by the adjustment of the separator the fat is kept at twenty-five per cent, which is the University standard for cream. The milk also is frequently tested, and held to the standard by adding sufficient skim milk or cream to bring the fat to four percent.

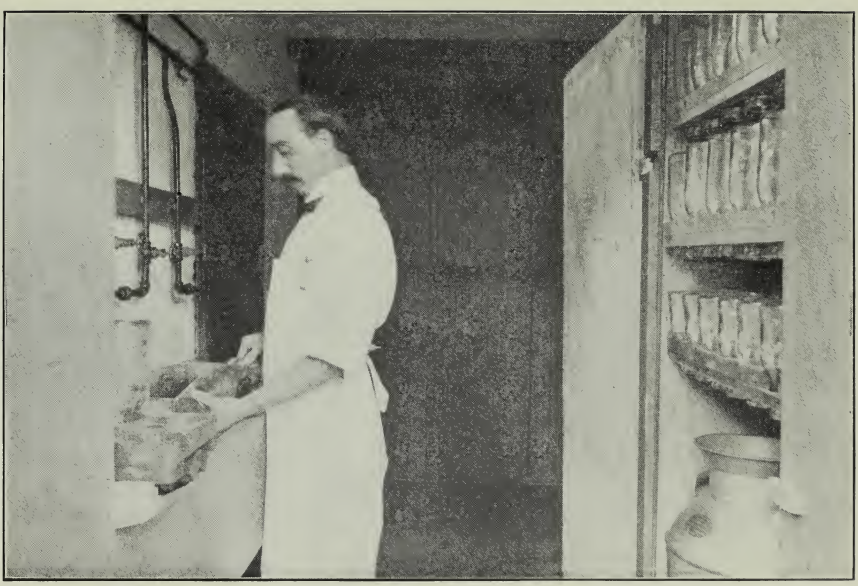


SEPARATING AND STANDARDIZING.
"Quality Guaranteed" is the best trade-mark.

UTENSILS AND DAIRY ROOMS

The pails, strainer, cooler, bottles, and everything with which the milk comes in contact are first rinsed in cool water, then thoroughly washed in hot water and soda, again rinsed, and afterwards sterilized for twenty minutes with live steam in a brick sterilizer. They are then both clean and sterile, and do not infect the milk.

The dairy is kept scrupulously clean, and is at all times free from dust and bad odors. The surroundings are favorable for pure air, and nothing producing bad odors is allowed to accumulate. Every effort is made to produce a milk that is as nearly free from all impurities and contamination as can be secured by most carefully observing all the principles and facts known to the science of dairying.



WASHING AND STERILIZING.
"Cleanliness is next to godliness."

DELIVERY AND GUARANTEE

Preparatory to delivery, the bottled milk is placed in zinc-lined wooden boxes, thus keeping it both clean and cool. In hot weather chipped ice is packed about the bottles to preserve their low temperature until they reach the consumers. Bottling not only prevents contamination during delivery, but also insures to all correct measure and uniform richness.

Milk and cream are delivered in bottles bearing the University name, and the contents are guaranteed to standard and to be produced as above described. Milk is sold at seven and a quarter cents a quart, and cream at seventeen and a half cents a pint.

Inspection is invited, and visitors are always welcome except on Sunday.

STARTING ON THE MORNING ROUNDS.
Appearance adds a flavor to the food.